



Province of
British Columbia

Ministry of
Energy, Mines and
Petroleum Resources

ASSESSMENT REPORT
TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S) GEOLOGICAL	TOTAL COST \$2500
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AUTHOR(S) ... M. A. KAUFMAN ... SIGNATURE(S) ... M. A. Kaufman

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED ... APRIL 19, 1994 ... YEAR OF WORK 1994

PROPERTY NAME(S) ... GUS CLAIM GROUP

COMMODITIES PRESENT ... GOLD, SILVER, ZINC, LEAD

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN ... # 62, 257

MINING DIVISION ... NELSON ... NTS ... 82 F / 3 E

LATITUDE ... 49° 3' ... LONGITUDE ... 117° 14' 30"

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property [Examples: TAX 1-4, FIRE 2 (12 units); PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Lease ML 12 (claims involved)]:

GUS # 1 (324344), GUS # 2 (324345), GUS # 3 (324346), GUS # 4 (324347)

OWNER(S)

(1) M. A. KAUFMAN (2)

MAILING ADDRESS

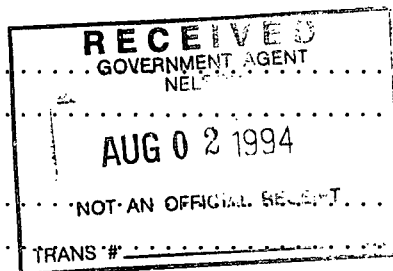
P. O. Box 14336
SPOKANE, WA 99214 USA

OPERATOR(S) (that is, Company paying for the work)

(1) M. A. KAUFMAN (2)

MAILING ADDRESS

AS ABOVE



SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude):

SEE INTRODUCTION & GEOLOGY. AV-Ag MINERALIZATION IS RELATED TO SEVERAL FAULT ZONES TRAVERSING LAIB, NELWAY AND ACTIVE FERMATION. PHYLLITES AND LIMESTONES AND SILTSTONES. MINERALIZATION IS SEEN ON THE BLACK BLUFF THRUST FAULT, STRIKING CROSS-CUTTING TRANSVERSE FAULTING, AND ON W.N.W. TRENDING FRACTURES.

REFERENCES TO PREVIOUS WORK ... GSC MAP 115 A; COMPANY REPORTS FROM LACANA MINING CORP.; O.R.V.A.N.A. MINERALS CORP.; QLD. B.C.D.M. REPORTS

LOG NO:	AUG 09 1994	RD.
ACTION:		
FILE NO:		

Gus Claims Assessment Report
June 20, 1994

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GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,438

Gus Claims Assessment Report
June 20, 1994

INTRODUCTION

The Gus Claim Group comprised of the claims Gus 1 - 4, which occupy an area of one km. square, is located in the west Kootenays approximately 7.5 km NE of the Canada-USA Nelway border crossing. The centre of the claims is approximately 1.8 Km east of Rosebud Lake.

Access is by the Rosebud Lake road and thence by a rough 4x4 trail starting east of the SE part of Rosebud Lake and going ENE to the old Lone Silver Mine and beyond to the Gus Claims.

Within the Gus Claims are two old mines, the Davne and the Lucky Strike. Both have produced small amounts of high grade gold-silver ores also containing lead, zinc and copper. Past work on these mines is well documented in old BCDM reports. During 1987, Lacana Mining Co. based on my prospecting work acquired a large land position in the area, and subsequently carried out an extensive soils geochemical survey. Lacana then was acquired by Corona Corp., which farmed the property out to Orvana Minerals Corp., which in 1992 drilled one core hole near the center of what are now the Gus Claims. Orvana eventually relinquished its interest and the property reverted to Corona. Corona was then acquired by Homestake Mining Co. which relinquished the property (sight/site unseen) evidently in a cost cutting move.

My original acquisition recommendation was inspired by sampling of the old Lone Silver mine dumps. Here, very ordinary looking limey rock surprisingly returned interesting Au/Ag assays from a mineralized body localized on the Black Bluff fault, part of a regional zone of thrusting. The subsequent soils sampling by Lacana was encouraging in that it detected a significant gold anomaly, among others, in an area of partly exposed bedrock located about 1.1 Km NE of the Lone Silver where the barren-looking limey bedrock would not inspire a prudent man to sample. The single angle hole drilled across this area by Orvana, though it did not cut ore grade, did intersect three anomalous gold zones. It was a good informational hole, but was located more for ease of access to beat an impending assessment deadline.

The work described by this report consists of reconnaissance geological mapping of the claim group along compass traverses and old trails combined with a compilation of work done since 1987. The results are shown on the accompanying 1:10000 and 1:1000 scale geological maps.

Geological Report

Bedrock over much of the Gus property is masked by glacial overburden. The Gus property is underlain by lower Cambrian Laib formation phyllites and middle Cambrian Nelway formation limestones and dolomites which unconformably overly middle Ordovician Active formation argillites, limes and slates. There are no known intrusive bodies on the claim group other than small "diorite" dikes reported from the Davne workings, and "light gray-green" sills or dikes reported in Orvana's drill log. The structure of the area is extremely complex. According to GSC map 1145A, it is located on the west limb near the nose of the Sheep Creek anticline. The anticline is cut by ENE striking, SE dipping thrust faults, and the thrusts are cut by N striking, steep dipping "transverse" faults. The unconformable contact between the Nelway formation and the underlying Active formation sediments is thought to be the ENE striking SE dipping Black Bluff thrust fault. Another thrust of similar orientation, the Argillite fault, traverses the country immediately north of the claims. Crossing the thrust, the GSC shows the Styx Creek "transverse" fault near the west boundary of the Gus claims. In addition, my mapping indicates possibly significant intermittent WNW fracturing.

The Black Bluff fault is not clearly exposed on the Gus Claims, and, indeed, can only be seen at two localities nearby, one on a roadcut on the highway, and the other at the Lone Silver Mine. The highway cut shows it to be a zone of chaotic shearing and brecciation, and old descriptions of the Lone Silver mineralized zones corroborate this interpretation. It is my opinion that the thrusts in the area are very complex, and that there are likely many zones of imbricate faulting related to them. Most of the bedding features mapped by the GSC probably parallel the general strike of the thrusting and represent complex overturned folding.

The Davne mine followed a roughly N70W steep dipping fissure said to be 5 to 50 centimetres wide. Recorded production was 4 tons of 2.75 opt gold and 42.5 opt silver probably plucked from small shoots. The fissure cut limy rocks of the Nelway formation. It is not exposed, but the limestone formations in the portal area are intensively sheared and appear structurally chaotic, suggesting that they may be part of an imbricate thrust zone located above the Black Bluff fault.

The Lucky Strike mine also followed a steep N70W fissure said to be of similar width to the Davne. At surface it cuts phyllites of the Laib formation. Its production of 55 tonnes averaging 1.3 opt gold and 35 opt silver likewise must have been taken from erratic shoots. In examining the surface cuts it appears that other smaller quartz veinlets following the phyllitic lineation might also be slightly mineralized. Mineralogically, both the Davne and Lucky Strike shoots, as well as those of the Lone Silver, contained gray copper (tetrahedrite?) with lesser chalcopyrite, galena and sphalerite. Pyrite is present but not abundant.

When one plots the Davne and Lucky Strike structures on a map, it is apparent that they occur on the same WNW trend. There is nothing to suggest that the trend is continually mineralized, but it might contain other high grade shoots. Between the two mine areas is a narrow NE trending swampy depression which I will discuss later.

The Lacana soils geochemical survey detected a number of anomalous areas, but it must be cautioned that the overburden cover in the region is variable, and where it is deep it is doubtful that the soils work is effective. Of principal interest to me is the elongate NE trending area of anomalous gold in soils detected by Lacana near the center of the present Gus Claims, which extends from the north end of the previously mentioned swamp for about 400 metres, at which point deep overburden is encountered. Mapping of the gray-black limestone and gray-green limey siltstone outcrops in this anomalous area indicate general N30E to N40E strikes with variable generally steep SE dips. There are frequent zones of WNW steep dipping cross fracturing. These rocks on cursory look do not appear to be altered or mineralized, but, in fact, there are numerous zones of what is probably remobilized carbonate, not unlike what is seen on the Lone Silver dumps. And there are sporadic very difficult to see showings of gray copper with minor galena mainly along fractures and in carbonate zones.

If one were to draw a cross section looking east at the center of the Gus Claims, based on GSC mapping it appears that there is a large overturned fold leaving older Laib sediments on top of younger Nelway sediments. The black Bluff fault should cut this fold forming the contact between older overlying Nelway rocks and younger Active formation sediments. In studying air photos I can not clearly see the Black Bluff fault, nor can I corroborate the GSC's interpretation, but it is probably correct. What can be easily seen

though is a very obvious NE linear feature which closely follows the narrow swampy depression mentioned above and can be clearly followed for 2.5 km to the SW. This in all likelihood represents a strong fault or fracture zone, possibly either the Styx Creek fault (off location from where the GSC shows it) or a branch of this fault.

The previously mentioned Lacana gold anomaly interestingly follows the direction of this linear where bedrock emerges from the swamp. Moreover, I believe that the formational strikes in this outcrop may be dragged from the predominant ENE of the region to NNE. Aside from a few zones of NE phyllitic lineation, there is little evidence of faulting in this outcrop area, but it is possible that the shearing is masked by alteration which has healed the fracturing. My guess is that the anomaly is caused by alteration/mineralization which has mobilized up bedding plane fractures and cross fractures. Interestingly, while some of the stronger anomalous rock contains subtle showings of gray copper or minor galena, in some cases the the anomalous rock appears quite barren.

The Orvana angle hole, which traverses the altered zone immediately north of the swamp intersected "thinly bedded, phyllitic limestone/dolomite, locally carbonaceous, cut by numerous calcite and quartz veinlets both parallel and crossing bedding." Below 85 metres there were numerous "fine grained, greenish brown to gray dykes" which show schistosity or foliation parallel or sub-parallel to bedding. There is consistent disseminated pyrite (1-3%) throughout the sediments, and slightly lower pyrite content in the "dykes". Most of the hole was non-anomalous or at best weakly anomalous in gold. However, three zones contained more anomalous values. The interval 143'-161' averaged 730ppb Au. The highest assay was 147'-150' at 2158ppb. Unfortunately there was no assay for 150'-156' because of poor recovery. The 147'-150' interval contained minor visible gray copper, sphalerite and galena. Otherwise this anomalous interval did not appear different from barren core. The interval from 260'-279' averaged 84ppb Au in an area where there is an abundance of "dyke" rock. And a similar interval from 295'-312' averaged 88ppb. In addition, the interval from 446'-451' assayed 80ppb Au. Here a shear zone contains quartz and low pyrite.

While no ore zones have been encountered by the recent work, the property does merit further exploration. It is particularly interesting that all of the known fault structures in places are mineralized. So areas of structural intersection offer valid drill

targets. For example, under the swamp the WNW Davne-Lucky Strike fissure zone should intersect the SW extension of the NE structure postulated by the Lacana gold anomaly. And it is likely that at depth both of these structures would intersect the Black Bluff thrust. The target would be significant Au-Ag bearing replacement deposits. The Gus Claims occurrences appear different from anything I have seen in the region, or for that matter in the province. There is some resemblance to some of the Nevada gold deposits, even anomalous mercury, but I do not know whether there is any micron- fine gold.

M. A. Kaufman

M. A. Kaufman

June 20, 1994



M. A. Kaufman
JULY 25, 1994

ITEMIZED COST STATEMENT

April 20, 1994:	M. A. Kaufman mapping -----	\$300
April 28, 1994:	M. A. Kaufman mapping -----	\$300
May 10, 1994:	M. A. Kaufman data comp. ----- 1/2 day	\$150
May 12, 1994:	M. A. Kaufman mapping -----	\$300
May 19, 1994:	M. A. Kaufman data comp. ----- 1/2 day	\$150
May 24, 1994:	M. A. Kaufman mapping -----	\$300
May 26, 1994:	M. A. Kaufman mapping -----	\$300
June 18, 1994:	M. A. Kaufman report prep. -----	\$300
Total	-----	\$1,800 (U.S.)*
Calculation to Canadian funds	\$1,800x 1.39 = -----	\$2,502 (Cdn)

* The amount \$300 (U.S.) is what I normally get paid from clients for this type of work.

AUTHOR'S QUALIFICATIONS

I, M. A. Kaufman hereby state that I have worked as a mining geologist and mining engineer for 37 years.

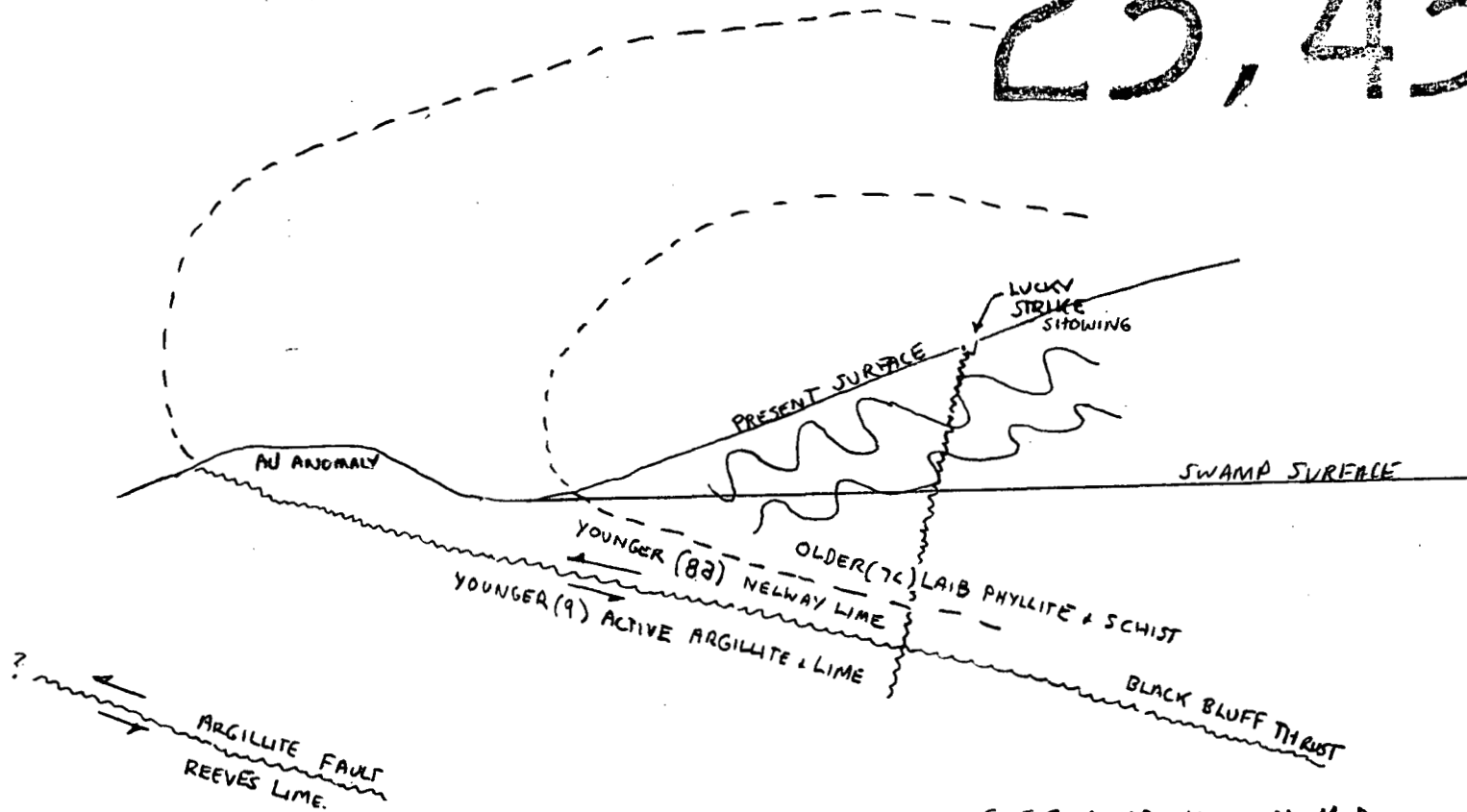
I received an A.B. degree in geology from Dartmouth College in 1955, and an M.S. degree in geology and mining engineering from The University of Minnesota in 1957.

I am currently registered as a Professional Engineer in the province of British Columbia.

From the period 1955 - 1965 I worked for the major companies, Kennecott, Giant Yellowknife (Falconbridge), Kerr-McGee, and Hunting Survey Corp. Ltd. I then worked on my own as a consultant and contractor, mainly for major companies. From 1969 through 1988, I was a principal of the consulting and contracting firm of Knox, Kaufman, Inc. From 1989 to present I have worked as an independent consultant and prospector.

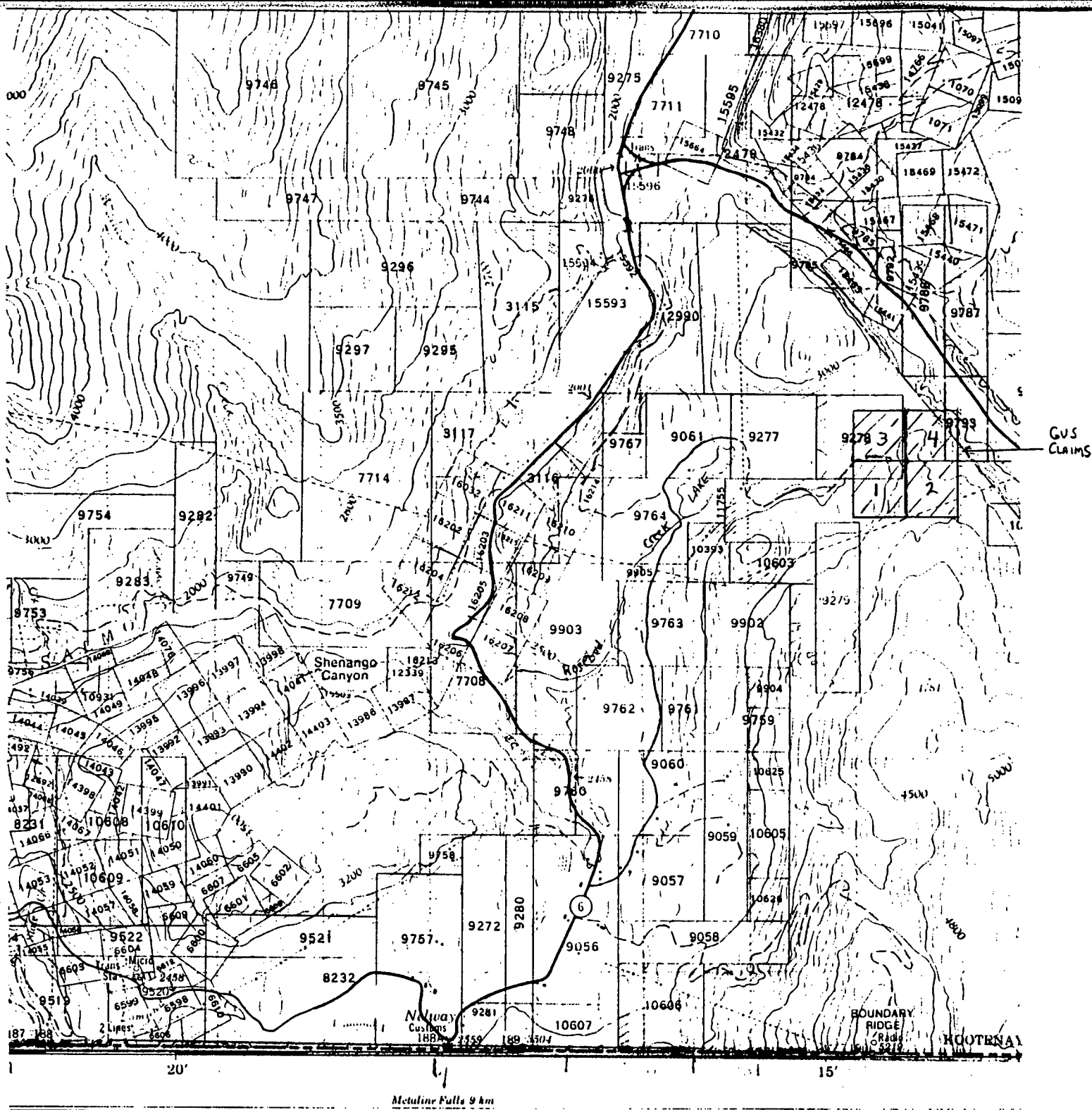
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GUS CLAIMS, NELSON M.D.
HYPOTHETICAL SECTION (SKETCH) AFTER GSC GEOLOG.
LOOKING EAST AT SWAMP ANOMALY
LONGITUDINAL SECTION THROUGH "TRANSVERSE" FAULT
(ALONG)
NOT TO SCALE

M. A. KAUFMAN JULY, 1994

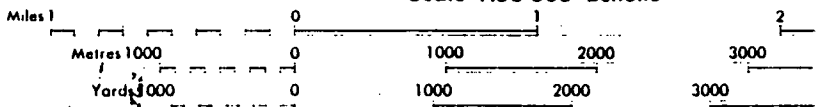


ts:		
1. toute saison	..... dual highway 2 chaussées séparées	more than 2 lanes plus de 2 voies
2. toute saison	..... 2 lanes 2 voies	less than 2 lanes moins de 2 voies
3. aggloméré, toute saison	..... 2 lanes or more 2 voies ou plus	less than 2 lanes moins de 2 voies
4. rvier, temps sec	.....
5. ors classe	.....
6. re	.....
7. r, percée ou portage	.....
8. POUR UNE LISTE COMPLÈTE DES SIGNIS VOIR AU VERSO		

SALMO

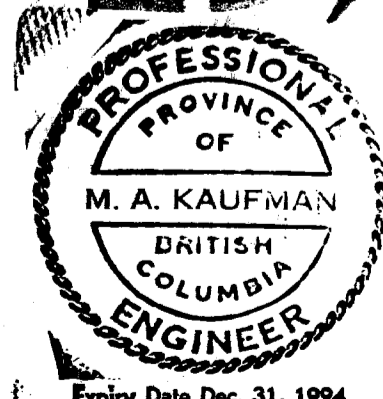
CANADA-UNITED STATES OF AMER

Scale 1:50 000 Échelle



GEOLOGICAL BRANCH
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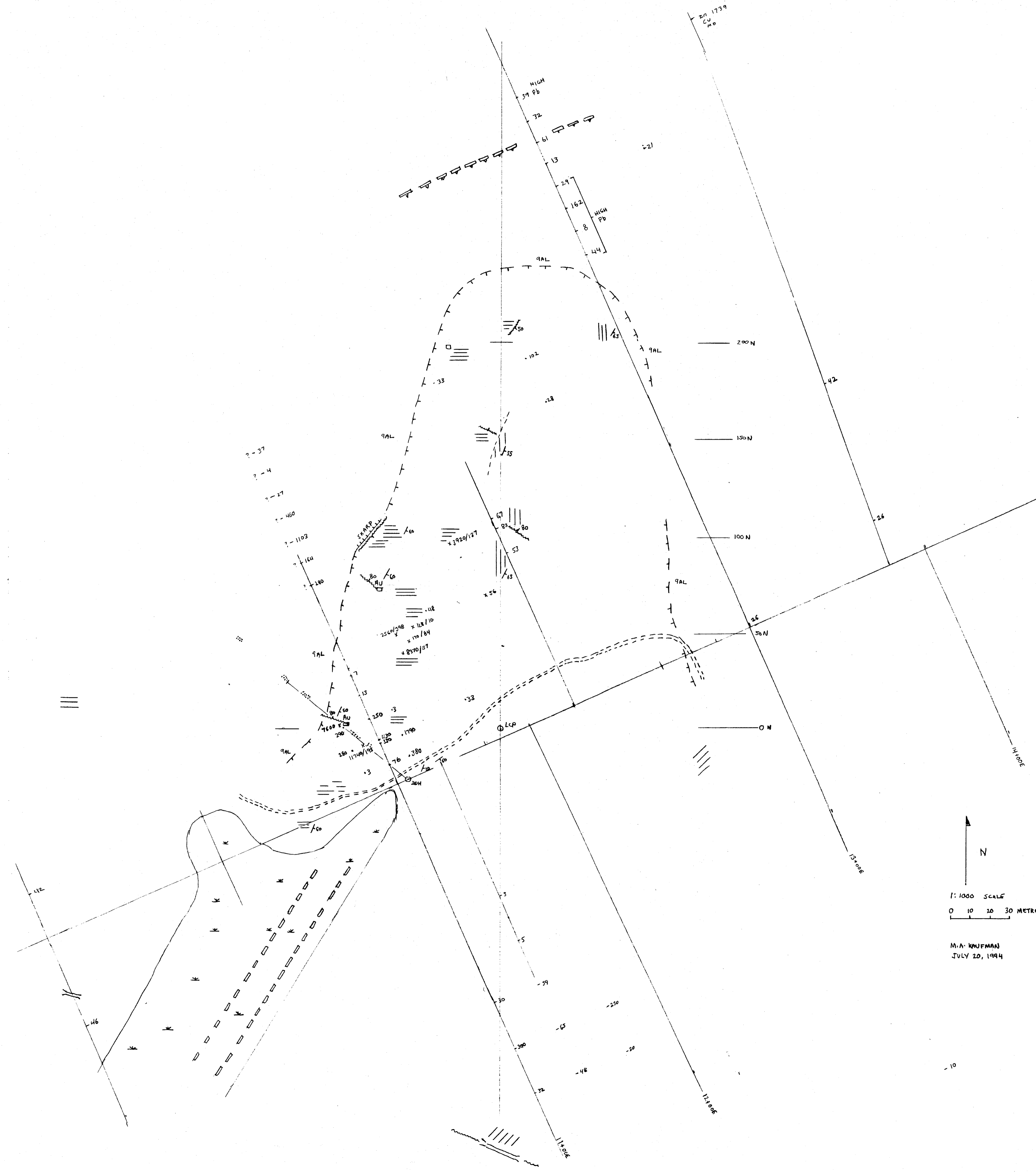
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M. A. Kaufman
July 25, 1994

GUS CLAIMS, NELSON M.D.
PRELIM. GEOLOGIC MAP

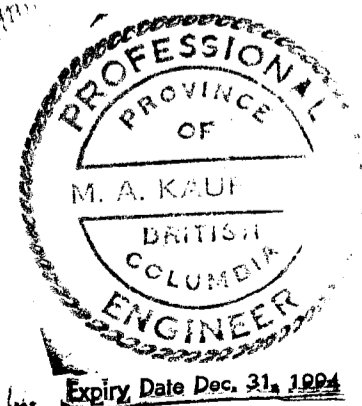
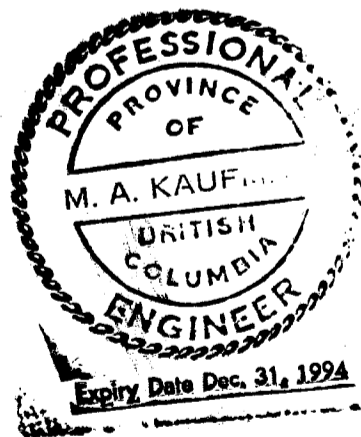
- NELWAY FM. GRAY-BLACK CARBONACEOUS LIMESTONE; FREQUENT SPORADIC LENSES AND VEINLETS OF CARBONATE.
- NELWAY FM. LIGHT GRAY-GREEN BANDED LIMY SILTSTONE; FREQUENT SPORADIC LENSES AND VEINLETS OF CARBONATE.
- LAIRD FM. LIGHT COLORED PHYLLITE OR SCHIST.
- BOUNDARY BETWEEN DEEP OVERBURDEN (9AL) AND AREAS OF SOME OUTCROP AND RELATIVELY SHALLOW OVERBURDEN.
- SHALLOW SWAMP
- STRIKE-DIP
- FRACTURE OR SHEAR ZONE
- THRUST FAULT POSTULATED BY GSC (DIP TO SE)
- FAULT/FRACTURE ZONE INTERPRETED FROM AIR PHOTO.
- LACANA GRID SHOWING PpB IN SOIL.
- LACANA GRID PpB IN SOIL
- ROCK SAMPLE PpB IN SOIL
- SMALL PIT
- OPEN CUT
- CORE DRILL HOLE; MINERALIZED INTERCEPT: PROJECTED UP DIP
- LEGAL CORNER POST: GUS 1, 2, 3, 4



N
1:1000 SCALE
0 10 20 30 METRES
M. A. KAUFMAN
JULY 20, 1994

GEOLOGICAL BRANCH
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M. A. Kaufman
July 25, 1994

- GUS CLAIMS, NELSON M.D.
PRELIM. GEOLOGIC MAP
AFTER GSC MAP 1145 A
- 9 ACTIVE FM., ARGILLITE, SLATE, LIMESTONE
 - 8B NELWAY FM., LIMESTONE, CALCAREOUS ARGILLITE.
 - 7C LAIB FM., PHYLLITE + SCHIST SOME LIMY
 - THURST FAULT, DIP SE
 - POSTULATED THURST FAULT
 - MAK MAPPING + COMPILATION
 - 8BL NELWAY FM., MOSTLY DARK GRAY CARBONACEOUS LIMESTONE. LIGHT GRAY-GREEN LIMY SILTSTONE AT EASTERN PART OF PU ANOMALY NE OF SWAMP
 - STRIKE + DIP, AIR PHOTO INTERP.
 - STRIKE/DIP MAPPED
 - FAULT OR FRACTURE ZONE MAPPED SHOWING DIP DIRECTION
 - FAULT OR FRACTURE ZONE, AIR PHOTO INTERP.
 - GOLD SOILS ANOMALY
 - Zn SOILS ANOMALY
 - SMALL PITS, MINERALIZED ROCK.
 - OPEN CUT
 - ADIT

